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The Relationship between Self-Efficacy, Other-Efficacy, and Relation-Inferred Self-Efficacy with Performance in Soccer

Jennifer Cilz

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THE RELATIONSHIP BETWEEN SELF-EFFICACY, OTHER-EFFICACY, AND
RELATION-INFERRED SELF-EFFICACY WITH PERFORMANCE IN SOCCER

by

Jennifer Cilz
Bachelor of Science, University of North Dakota, 2004

A Thesis
Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

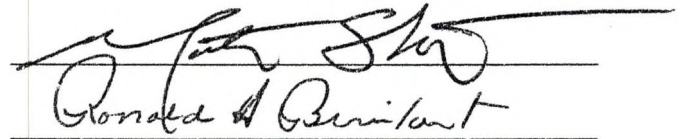
Master of Science

Grand Forks, North Dakota

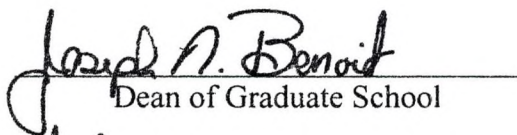

August
2006

This thesis, submitted by Jennifer L. Cilz in partial fulfillment of the requirements for the Degree of Master of Science from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.


Chairperson


Ronald A. Benoit

This thesis meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.


Dean of Graduate School

Date


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Title The Relationship Between Self-efficacy, Other-efficacy, and Relation-
 inferred Self-efficacy with Performance in Soccer

Department Kinesiology

Degree Master of Science

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ABSTRACT

This study assessed the relationships between other-efficacy, relation-inferred self-efficacy, self-efficacy, and performance. The participants were three head coaches and 40 athletes from three NCAA women's soccer teams. New measures of self-efficacy, other-efficacy, and relation-inferred self-efficacy were developed using Bandura's guidelines. Performance was measured by the number of times the athletes completed a soccer task successfully. Analysis indicated that none of the efficacy measures could predict performance. Results did show a significant correlation between relation-inferred self-efficacy and the self-efficacy measures, indicating that the self-efficacy an athlete has to perform a task was similar to what they perceived their coaches' perceptions would be.

CHAPTER I

INTRODUCTION

Self-efficacy, the belief one has in being able to execute a specific task successfully to obtain a certain outcome (Bandura, 1986, 1997), has received a lot of research attention. The majority of the research has studied the role of self-efficacy beliefs in predicting or influencing an individuals' behavior. In their meta-analysis (Moritz, Feltz, Fahrback, & Mack, 2000) showed that the average correlation between self-efficacy and performance in sport was .38. This result shows that self-efficacy beliefs have a positive relationship with performance.

Bandura (1997) stated that self-efficacy beliefs determine how people feel, think, motivate themselves, and behave. Efficacy beliefs can be developed by four main sources of influence including mastery experiences, verbal persuasion, vicarious experiences (including models and social persuasion), and inferences from somatic and emotional states. The information the sources provide are not all encompassing and some of the sources may be more influential than others (Bandura 1986, 1997).

According to Lent and Lopez (2002), how self-efficacy beliefs are developed and maintained through interpersonal processes has received relatively little study.

Interpersonal processes involve relations and interactions between people. Lent and Lopez noted that Bandura's theory of efficacy does give emphasis to the role of social influences in that self-referent thought is assumed to originate from observing both the

consequences of one's own actions and the experiences of others (Bandura, 1986, 1997), and that social relationships have an influence in promoting growth and change in self-efficacy perceptions. However, Lent and Lopez (2002) have argued for further study to expound on the role of efficacy beliefs within the context of close relationships. To this end, they proposed a "tripartite view of efficacy beliefs" that focuses on relational efficacy processes as a complement to self-efficacy theory. They suggested that studying the tripartite view will help to advance the understanding of how participants' beliefs in relationships may impact another's psychological growth and well-being.

Based on social cognitive theory, Lent and Lopez (2002) highlight the pervasive influence that the social environment has on self-efficacy perceptions. Within their framework, they proposed a network of interpersonal or interactive efficacy beliefs about the self and others within the context of a relationship. Although Lent and Lopez described the tripartite view in a counseling setting with the relationship being the patient and the client, they believe it is relevant to all close relationships, like those between athletes, coaches, sport psychologists, and athletic trainers in sport.

Lent and Lopez (2002) stated that within close relationships self-efficacy beliefs exist in dynamic interaction with the beliefs that people hold about the efficacy of others, and about how others view them. In addition to self efficacy, they referred to these new forms of efficacy as other-efficacy and relation-inferred self-efficacy (RISE). Self-efficacy is defined as each person's view of his or her own efficacy or person A's beliefs of his or her self. Self-efficacy can be considered as a situational specific self-confidence (Feltz, 1988). An example of self-efficacy is an athlete's perception of his/her own ability

to perform a task (i.e., how confident a soccer player is in her belief that she can score a goal on a penalty kick).

Other-efficacy beliefs were defined as an individual's beliefs about his or her significant other's ability to perform particular behaviors (Lent & Lopez, 2002). In other words, they are considered to be person A's beliefs about person's B's capabilities and vice versa. Lent and Lopez also defined other-efficacy as each partner's view of the other's efficacy, which led to some conceptual confusion of what other-efficacy beliefs were actually referring to (Feltz, Short, & Sullivan, in press). That is, were they to be an assessment of a partner's abilities or an assessment of a partner's efficacy? Feltz et al. suggested that the assessments of other efficacy could be "ability-focused" and/or "confidence-focused" and offered suggestions for item stems. For example, "rate your partner's ability to..." may serve as a stem for an "ability-focused" assessment and "rate your partner's confidence in his ability to..." may serve as a "confidence-focused" assessment. Lent and Lopez (1991) used the stem: "rate your confidence in your partner's abilities to..." to assess other-efficacy beliefs suggesting that they were targeting "ability-focused" assessments of other-efficacy. An example of other efficacy in sport could be the coach's perception of an athlete's capabilities.

Relation-inferred self-efficacy beliefs (i.e., RISE) were defined as an individual's belief regarding how a significant other views the individual's efficacy at particular tasks or behavior domains (Lent & Lopez, 2002). RISE beliefs can be conceptualized as person A's appraisal of how the other (person B) views person A's confidence or abilities and vice versa. Again, there was some conceptual confusion regarding what, exactly, Lent and Lopez referred to for RISE beliefs. Like other-efficacy beliefs, Feltz et al. (in press)

suggested that the assessments of RISE beliefs could also be “ability-focused” or “confidence-focused.” Thus, as a sport example, RISE beliefs could be the athlete’s perception about how his/her abilities are viewed by their coach: “how do you think your coach would rate your ability to...” may serve as a stem for this “ability-focused” assessment. A “confidence-focused” assessment example could be the athlete’s perception of how confident he/she thinks his/her coach thinks he/she is. “How confident do you think your coach thinks you are?” may serve as a stem for this “confidence-focused” assessment.

The interpersonal context of efficacy beliefs has often been overlooked in research. In sport, no single study has directly assessed these three types of efficacy beliefs and their relationship to performance. Some studies seem to have addressed certain components. For example, Short and Short (2004) compared coaches’ assessments of their own efficacy with their athletes’ perceptions of the coaches’ efficacy. In other words, they examined the self-efficacy of the coaches and other-efficacy beliefs of the athletes. They found that coaches and athletes viewed the coaches’ efficacy similarly. However, there were limitations to this study as the sample was small and they did not look at how efficacy related to performance. Chase, Lirgg, and Feltz (1997) assessed other-efficacy beliefs by examining the coaches’ efficacy beliefs about their team’s abilities, and showed that there was a relationship with performance. They found that the coach’s efficacy about their team was a predictor of their team’s performance (as measured by free throw shooting percentage and number of turnovers). In an interesting study, Beauchamp and Whinton (2005) had equestrians assess their own self-efficacy and their confidence in their horses’ abilities (other-efficacy) prior to

competition. They found that self-efficacy and other-efficacy were each able to explain unique variance in performance. Taylor, Bandura, Ewart, Miller, and DeBusk (1985) looked at the recovery from heart attacks in an intervention program that involved male patients and their wives. They found that active involvement by the wives (e.g., observing their husbands' perform the treadmill exercises and performing the activities themselves) enhanced the wives' confidence beliefs in their husband's physical and cardiac capabilities. The husband's subsequent cardiovascular functioning was best predicted by couples' joint beliefs about the husbands' cardiac capabilities.

Lent and Lopez (2002) discussed how other-efficacy appraisals have the potential to engage self-fulfilling prophecies. Merton (1948) first used the term, self-fulfilling prophecy, to explain when something is expected to happen; this stimulus to behavior actually causes the behavior to occur. For example, a coach who has certain expectations about an athlete's competence in a particular skill may lead the athlete's behavior to conform to the expectations. In other words, self-fulfilling prophecies introduced how other-efficacy beliefs may have an impact on another's behavior. Along with performance, these other efficacy beliefs of the coach could also effect the expectations of the athlete.

There have been some studies that suggest that the beliefs of one relationship participant about the capabilities of another can affect the perceiver's behavior toward the other, and, in turn, the beliefs or behaviors of the other (Lent & Lopez, 2002). This research suggests that other-efficacy beliefs do have important implications even though they did not necessarily use the term other-efficacy. In one such related study, Solomon (2002) examined the coach's perceptions of athlete's confidence and abilities and

whether these perceptions predicted actual athlete performance. The results of the study showed that the coach's perception of athletes' confidence was the only significant predictor of individual athlete performance. These results were consistent with an earlier study also conducted by Solomon (2001). Although Solomon did not use these terms, she investigated the relationship between "ability-based" other-efficacy and "confidence-based" other-efficacy with performance. By using multiple regression, she showed that psychological impressions or "confidence-based" other-efficacy beliefs had an influence on athletes' performance. Another study that examined the effect of one person's expectation on another's behavior was conducted by Solomon, Striegel, Eliot, Heon, and Maas (1996). Coaches hierarchically ranked their athletes according to their perceived basketball ability. The interactions between the coaches and athletes were then observed during training. The athletes' perceptions of the feedback they received were also explored. Solomon et al. (1996) found that high expectancy athletes received more of all types of feedback and were more likely to perceive their coaches more positively. This study is related to the study of efficacy because it examines the dynamic interaction with other-efficacy beliefs and RISE beliefs, in this case, the interaction of the coach's beliefs of the athlete's capabilities and the athlete's perceptions of how their abilities are viewed by the coach. Coaches may not be aware that their other-efficacy beliefs may have been communicated to the athletes through the type of feedback they received. Regardless of how other-efficacy beliefs are communicated, the effect of the other-efficacy beliefs on self-efficacy, if any, are hypothesized to flow partly through RISE beliefs (Lent & Lopez, 2002).

With this theoretical and research-based background, it seems as though the study of relational efficacy is promising. Thus, the purpose of this study was to assess the relationships between other-efficacy, relation-inferred self-efficacy, self-efficacy and performance. Based on the Short and Short study (2004), it was hypothesized that the self-efficacy that an athlete has to perform a task will be similar to what they perceive their coach's perceptions to be. It was also expected that all forms of self-efficacy would be predictive of performance, although they would likely vary in strength.

CHAPTER II

METHOD

Participants

Participants consisted of athletes ($n = 40$) and head coaches ($n = 3$) from two NCCA Division I soccer teams and one NCAA Division II soccer team. All of the athletes were female and all of the coaches were male. The coaches ranged in age from 28 to 39 years ($M = 32.00$, $SD = 3.85$). All of the coaches had been coaching their current team for at least one year ($M = 2.17$, $SD = 1.04$), and had coached soccer overall for an average of 11 years ($SD = 7.93$). Using a 0-10 scale (where 0 = cannot at all and 10 = highly certain can do), all of the coaches were fairly confident in their ability to judge their athlete's ability ($M = 7.67$, $SD = 1.53$) and confidence ($M = 7.00$, $SD = 1.00$).

The athletes ranged in age from 18 to 23 years ($M = 19.48$, $SD = 1.15$). All positions, including goal-keepers, were represented. The sample had been playing at the university level for an average of 1.9 years ($SD = 0.95$) and had been playing soccer in general for an average of 13 years ($SD = 2.95$). All of the athletes had at least one full season of playing experience under the coaches used in this study. Based on win-loss record, 63% of the athletes, or 2 of the 3 teams, were on a winning team last season and 90% of the athletes considered themselves to be doing well in their sport of soccer. On the same 0-10 scale, the athletes ranked the coaches as moderately accurate at being able

to judge their ability ($M = 6.46, SD = 2.23$) and confidence ($M = 5.85, SD = 2.02$). At the time of the study, all of the athletes were in off season training.

Measures

New measures of self-efficacy, other-efficacy, and relation-inferred self-efficacy were developed for use in this study because there were no existing measures that addressed all three forms of efficacy beliefs in soccer. The measures were developed using Bandura's guidelines (2001) for creating efficacy measures.

Self-efficacy was assessed by having each player rate her degree of confidence in her ability to perform a specific soccer skill (described in the following section) using a 0-100 scale (see Appendix A). The specific stem was "rate your confidence in your ability to..." The measure was task-specific and was hierarchically arranged to represent increasing levels of complexity. Participants were asked to rate their confidence in their ability to accurately hit the target 1/10 times, hit the target 2/10 times, and so on up to hit the target on all attempts (10 attempts). Participants responded by circling a number on a 100 point Likert scale (0 = *I cannot do this at all*, 100 = *I am highly certain I can do this*) for each level of task difficulty. They were also asked to rate their ability to do the same tasks. The specific stem was "rate your ability to..." Self-efficacy scores were computed by summing all ratings and dividing by 10 (i.e., the number of difficulty levels).

The measures for other-efficacy were given to the coaches to assess their perceptions of the athletes' self-efficacy and ability. These measures were the same as those described above except that the coaches rated their athletes' abilities to hit the target (i.e., ability-focused other efficacy) as well as their athletes' confidence in their

ability to hit the target (i.e., confidence-focused other efficacy) using the same 0-100 scale (see Appendix B).

“Ability-focused” and “confidence-focused” RISE belief measures for the athletes were also created. “Ability focused” RISE beliefs were assessed by having each athlete rate the degree of confidence she feels that her coach has in her ability to perform the skill using the same format described above (see Appendix C). “Confidence-focused” RISE beliefs were assessed by having each athlete rate how confident she thinks her coach thinks she is in her ability to perform the skill.

The reliabilities for all of the measures were acceptable. Alphas were computed separately for all six measures, and all values were above .91 (see Table 1). These results indicate that the scores produced by each of the measures had adequate internal consistency.

Performance Measure

Each athlete completed a soccer task in which they kicked a soccer ball off the ground over the distance of 20-25 yards to a four by four foot target taped four feet up from the ground on the wall (see Figures 1 and 2). The target was marked on the wall with colored duct tape (see Figure 3). Performance was measured by counting how many of the balls landed within a four by four foot box, which was the number of times the drill was completed successfully. Each athlete attempted 10 kicks using their dominant foot.

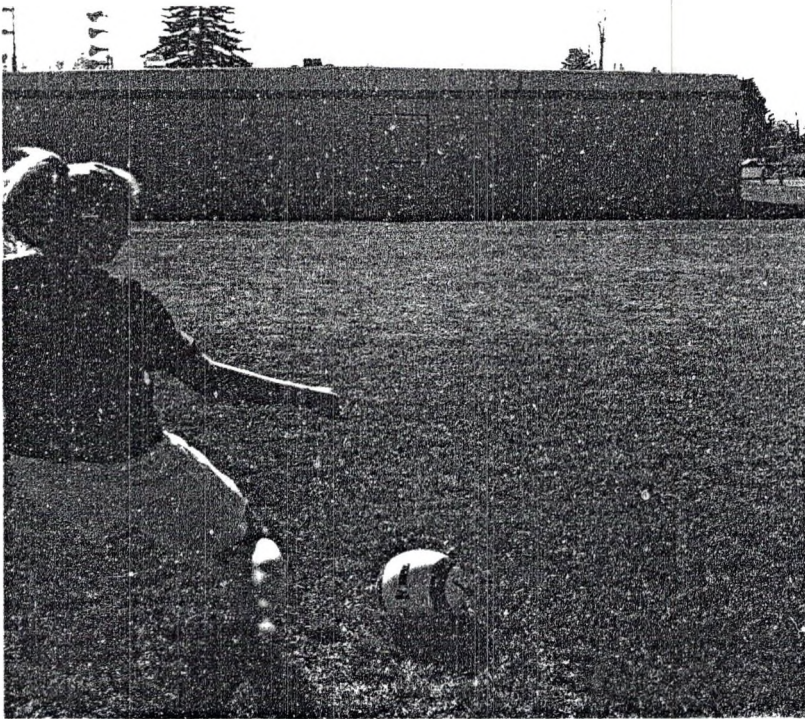


Figure 1. Soccer Task – Frame 1



Figure 2. Soccer Task – Frame 2

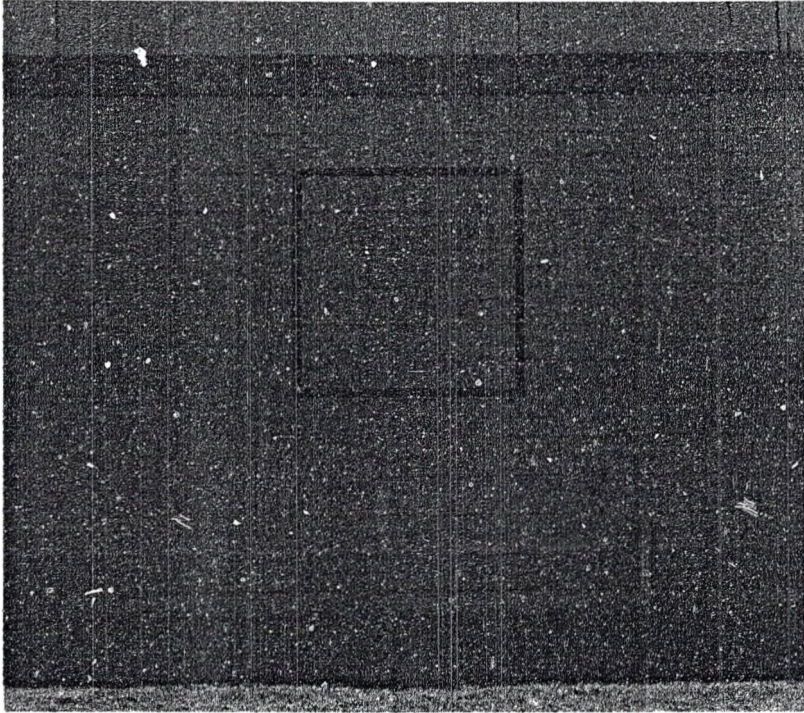


Figure 3. Four by Four Foot Target

Procedure

Approval to conduct this study was obtained by the Institutional Review Board of the University of North Dakota (IRB 200601-002). This study was conducted during the off season so that each player had completed at least one season under the coach. Participants (the athletes) signed up for a 20 minute slot at the field or gymnasium to complete the questionnaire and task. During that time, the purpose of the study (to study the relationships between coach's perceptions, athlete's perceptions, and performance) was explained. Each participant came to the field during their time slot and signed a consent form. Upon consent, the participant was given 5 practice trials of the soccer task. The participants then filled out the self-efficacy and RISE measures. Once the measures had been completed, the participants completed the task. For the coaches' ratings, each coach was given the other-efficacy measures during their regularly scheduled office

hours and they were asked to complete one for each participant (athlete) within a week time period.

CHAPTER III

RESULTS

Descriptive statistics (see Table 1) for the ability-focused and confidence-focused measures indicated that athletes in this sample rated their ability and confidence to perform the task higher than what the coaches rated the athletes' ability and confidence to be. The athletes also rated their perceptions of how the coach would view their ability and confidence higher than what the coaches actually rated the athletes' ability and confidence. The values in Table 1 show that athletes rated their "ability-focused" self-efficacy the highest and their "confidence-based" RISE beliefs the lowest.

Table 1. Descriptive statistics.

Measure	Mean	Standard Deviation	Range	Alpha
CSE ¹	40.02	17.98	74.00	.95
ASE ²	50.91	22.35	93.50	.95
CR ³	45.10	18.93	91.00	.94
AR ⁴	47.10	23.38	98.00	.96
COE ⁵	36.32	12.99	55.00	.91
AOE ⁶	37.66	15.22	52.00	.93
Performance	1.25	1.10	4	

¹ Confidence Self Efficacy

² Ability Self Efficacy

³ Confidence RISE

⁴ Ability RISE

⁵ Confidence Other-Efficacy

⁶ Ability Other-Efficacy

Pearson correlation coefficients were calculated between the "confidence-focused" and "ability-focused" measures (see Table 2). All correlations were strong and positive in direction: for self efficacy ($r(34) = .86, p < .001$); for other efficacy measures

($r(38) = .83, p < .001$), and for RISE beliefs measures ($r(32) = .84, p < .001$). There was also a significant correlation between both of the self-efficacy measures with both of the RISE beliefs measures. This significance shows that athletes rated their own “ability-focused” and “confidence-focused” self-efficacy similar to how they perceived their coach would rate the athletes’ ability and confidence. The correlations between the other efficacy measures with the RISE and self-efficacy measures were not significant.

Table 2. Correlations among efficacy measures and performance.

Measure	CSE	ASE	CR	AR	COE	AOE	Performance
CSE ¹	1.00						
ASE ²	.86*	1.00					
CR ³	.79*	.87*	1.00				
AR ⁴	.67*	.79*	.84*	1.00			
COE ⁵	-.06	-.06	-.04	-.02	1.00		
AOE ⁶	-.16	-.22	-.08	-.06	.83*	1.00	
Performance	.01	-.16	.06	-.08	-.09	.15	1.00
Performance 2	.08	-.02	-.17	-.09	.01	.00	0.23

¹ Confidence Self Efficacy

² Ability Self Efficacy

³ Confidence RISE

⁴ Ability RISF

⁵ Confidence Other-Efficacy

⁶ Ability Other-Efficacy

* Correlation is significant at the 0.01 level (2-tailed)

A multiple linear regression was calculated predicting performance based on the confidence measures for each of the tripartite views (i.e., the predictors were self-efficacy, other-efficacy and RISE). The regression equation was not significant ($F(3, 30)$

= .81, $p > .05$) with an R^2 of .075. This result shows that none of the “confidence-focused” measures could predict performance.

A multiple linear regression was also calculated predicting performance based on the ability measures for each of the tripartite views. The regression equation was also not significant ($F(3, 29) = .28, p > .05$) with an R^2 of .03.

These findings, that efficacy beliefs were not predictive or associated with performance, were not surprising given that the performance scores were so low and had little variability. Out of 10 trials, the performance mean was 1.25 ($SD = 1.10$). In fact, 11 out of the 40 athletes failed to complete the tasks successful even once. For this reason, a second study was carried out with a subsample of 15 participants. This time, in an attempt to create variance in the performance scores, the athletes were awarded points based on how close they were to hitting the target by placing two larger boxes around the initial target (see Figure 4). One box measured six by six feet and was placed one foot outside of the

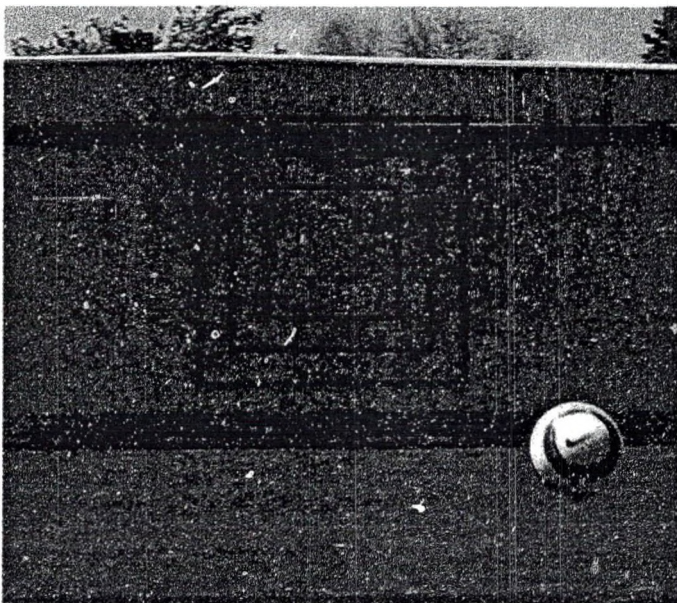


Figure 4. Soccer Task #2

initial target and another box was placed two feet outside of the initial target and measured eight by eight feet. Each box was marked with a different color of duct tape. The athletes attempted to hit the same four by four feet target ten times. A ball that landed within the four by four feet box was awarded 3 points. A ball that landed within the six by six feet box, but outside of the four by four feet box, was awarded 2 points. A ball that landed within the eight by eight feet box but outside of both other boxes was awarded 1 point. Any ball that did not land within any of the boxes was awarded 0 points.

Using the new performance scores, Pearson correlation coefficients were calculated (see Table 2). There was no significant correlation between the new performance scores and any of the measures. A multiple linear regression was calculated predicting performance based on the confidence measures. The regression equation was not significant ($F(3, 11) = .62, p > .05$) with an R^2 of .14. When the ability measures were used, the regression equation was also not significant ($F(3, 11) = .97, p > .05$) with an R^2 of .02.

CHAPTER IV

DISCUSSION

The purpose of this study was to assess the relationships between other-efficacy, relation-inferred self-efficacy (RISE), self-efficacy and performance. It was hypothesized that the self-efficacy that an athlete had to perform a task would be similar to what they perceived their coach's perceptions to be (i.e., self-efficacy beliefs and RISE beliefs). The strong positive correlation between the RISE and self-efficacy measures showed that the self-efficacy that an athlete has to perform a task was similar to what they perceived their coach's perceptions to be. This result was interesting because the athletes rated the coaches as only moderately able, on average, to rate their confidence and ability, yet they still rated their own confidence and ability similarly to how they perceived their coach would rate their ability and confidence. This finding is consistent with Lent and Lopez's (2002) statement that self-efficacy beliefs exist in dynamic interaction with the beliefs about how others view them (RISE). However, Lent and Lopez (2002) also stated that self-efficacy beliefs exist in dynamic interaction with the beliefs that people hold about the efficacy of others. This statement was inconsistent with the results of this study because there was no significant correlation between the coaches' other-efficacy and the athletes' self-efficacy. This result could have occurred because the coaches may have been more accurate in judging the difficulty of the task than the athletes were. Comments regarding the difficulty of the task are presented below.

The correlations between the “ability-focused” and “confidence-focused” measures were high, but were not perfect. These results suggest that they are measuring different things. The use of stems illustrates how athletes and coaches respond differently when giving their ratings depending on whether they are instructed to rate their ability to do the task or to rate their efficacy/confidence. Further research may investigate the sources for these two stems, and the sources that affect the athletes’ and coaches’ difference in ratings.

In sport, the majority of the research has consistently found self-efficacy to be predictive of performance (Moritz et al., 2000). Thus, it was hypothesized that all forms of self-efficacy would be predictive of performance. The results of this study were not consistent with these findings. Feltz et al. (in press) suggested that where self-efficacy has not been shown to be a strong predictor of sport performance, it probably has more to do with the way in which efficacy beliefs were measured than with the conceptual soundness of self-efficacy theory. In this study, the efficacy measures were constructed in accordance with Bandura’s (2001) recommendations, so this explanation is likely untenable. However, the lack of variance in the performance measure may have affected the results. In the first part of the study, out of 40 athletes, they hit the target only 1.25 times on average out of ten attempts and the range was only 4. In the second part of the study, out of 15 athletes, they received an average of 15.13 points out of a possible 30 points with a range of 12. These results could mean that the task may have been too difficult for the athletes. Even though the athletes were given five practice trials, this may not have been enough experience, and it is also possible that the athletes may have had an inflated sense of confidence that the task was easier than it was. After completing ten

trials, several of the athletes stated that the task was a lot harder than they thought it would be. Some of the athletes also stated "I am terrible" after missing their first few attempts. Other athletes stated that they were nervous before even beginning the practice trials. The athletes were instructed not to discuss the study with their teammates once they had completed it. However, it was possible that some of the athletes had already heard how their teammates had performed, which may have served as an efficacy source. Future research may look to replicate this study with a task that may create more performance variance, such as using a person in a restricted area as a target to make the task more game-like, using non-soccer players, including more practice trials, or taking a baseline score and then assigning distances based on how well the person performed.

In addition to making alterations to the performance task, there are other components of the procedure that could be changed for future research in this area. For example, in this study, the athletes were not aware of the coaches' other efficacy ratings. Replication of the study where the athletes are aware of the coaches ratings, and then not aware, may also make a difference in the results. Along those lines, bogus feedback (low, medium, high) could be given as well.

The results of this study did not support the hypothesized relationships between efficacy beliefs and performance. Solomon (2002) reported that coach evaluation of athlete confidence was the only significant predictor of individual athlete performance. The predictor variables in her study included the athletes' own evaluation of sport confidence, the coach's evaluation of the athletes' sport confidence, and the coach's evaluation of the athletes' physical ability. Again, although she did not use these terms, she showed that "confidence-based" other-efficacy was the only predictor of

performance. Although none of the measures used in this study were able to predict performance, it is intriguing to note that the coaches' "confidence-based" other efficacy beliefs significance level ($p = .15$) was much lower than the significance levels of all of the other measures ($p > .54$). It was also interesting to note that the coaches thought they were better judges of the athletes than the athletes thought the coaches were. Solomon's results, coupled with the results of this study, show a disparity in coach and athlete reports of ability and confidence which should justify further inquiry on coach's perception of athletes' confidence.

A limitation of this study may be that all of the coaches were male and all of the athletes were female. All of the participants were also from one sport. This homogeneous sample limits generalizations of the results to other sports and male teams. Further study may include teams of both sexes at various types of sports and competitive levels.

In conclusion, this study showed that athletes view their own efficacy similarly to how they believe their coach views their efficacy. However, there was not a strong correlation with how the coach viewed the athletes' efficacy and the athletes' own perceptions. Based on this finding, it seems reasonable to suggest that coaches and athletes may benefit from improvement in interpersonal skills so that expectations are consistent to avoid discrepant messages that may simply be dismissed. Further study of relational efficacy processes and their relationship with performance in sport will advance our understanding how the beliefs and about self and others may impact performance and psychological well-being.

APPENDICES

Appendix A
Self-Efficacy Measures

Self-Efficacy Measure (Confidence based)

You will be asked to strike 10 long balls to a target over the distance of 30 yards. Rate your confidence in your ability to hit the target for each of the levels described below using the following scale.

0	10	20	30	40	50	60	70	80	90	100
Not confident at all			Moderately confident				Highly confident			

(Number of accurate balls/Attempts)

Rating
(0-100)

1/10

2/10

3/10

4/10

5/10

6/10

7/10

8/10

9/10

10/10

Self-Efficacy Measure (Ability based)

You will be asked to strike 10 long balls to a target over the distance of 30 yards. Rate your ability to hit the target for each of the levels described below using the following scale.

0	10	20	30	40	50	60	70	80	90	100
Cannot do at all			Moderately can do					Highly certain can do it		

(Number of accurate balls/Attempts)

**Rating
(0-100)**

1/10

2/10

3/10

4/10

5/10

6/10

7/10

8/10

9/10

10/10

Appendix B
Other-Efficacy Measures

“Ability-focused” Other-Efficacy Measure

NAME OF ATHLETE _____

Each athlete will be asked to strike 10 long balls to a target over the distance of 30 yards. Rate your athletes’ ability to accurately hit the target at each of the levels described below by recording a number from 0 to 100 using the scale given below:

0	10	20	30	40	50	60	70	80	90	100
She cannot do it at all			Moderately sure she can do it				Highly certain she can do it			

(Number of accurate balls/Attempts)

**Rating
(0-100)**

1/10	_____
2/10	_____
3/10	_____
4/10	_____
5/10	_____
6/10	_____
7/10	_____
8/10	_____
9/10	_____
10/10	_____

“Confidence-focused” Other-Efficacy Measure

NAME OF ATHLETE _____

Each athlete will be asked to strike 10 long balls to a target over the distance of 30 yards. Rate your athletes’ confidence in her ability to accurately hit the target at each of the levels described below by recording a number from 0 to 100 using the scale given below:

0	10	20	30	40	50	60	70	80	90	100
She is not confident at all			She is moderately confident				She is highly confident			

(Number of accurate balls/Attempts)

**Rating
(0-100)**

1/10	_____
2/10	_____
3/10	_____
4/10	_____
5/10	_____
6/10	_____
7/10	_____
8/10	_____
9/10	_____
10/10	_____

Appendix C
RISE Measures

RISE Measure (Ability)

How do you think your coach would rate your ability to accurately hit your target at each of the levels described below.

0	10	20	30	40	50	60	70	80	90	100
He would say I cannot do it at all			Moderately can do				He would say I can certainly do it			

	Rating (0-100)
1/10	_____
2/10	_____
3/10	_____
4/10	_____
5/10	_____
6/10	_____
7/10	_____
8/10	_____
9/10	_____
10/10	_____

RISE Measure (Confidence)

How confident do you think your coach thinks you are in your ability to accurately hit your target at each of the levels described below.

0	10	20	30	40	50	60	70	80	90	100
He would say I am not confident at all			Moderately confident				He would say I am highly confident			

	Rating (0-100)
1/10	_____
2/10	_____
3/10	_____
4/10	_____
5/10	_____
6/10	_____
7/10	_____
8/10	_____
9/10	_____
10/10	_____

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